KENWOOD

L-02T

MODEL

DIAGRAM MANUAL

KENWOOD®

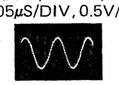
FM STEREO TUNER

Input condition
①~⑨、⑬、⑭:85MHz, 0 (Dev), 80dB (ANT input)
⑩~⑫:85MHz, 1kHz (Mod), 75kHz (Dev), 80dB (ANT input)

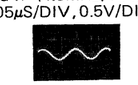
①IF output
0.05μS/DIV, 0.5V/DIV

②0.05μS/DIV, 0.5V/DIV
IF waveform

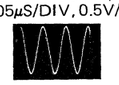
③2nd IF (4.5MHz) WIDE
0.05μS/DIV, 0.5V/DIV



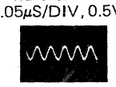
④2nd IF (4.5MHz) NARROW
0.05μS/DIV, 0.5V/DIV



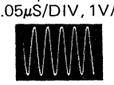
⑤6.2MHz VCO output
0.05μS/DIV, 0.5V/DIV



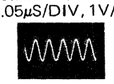
⑥IF waveform
0.05μS/DIV, 0.5V/DIV



⑦IF output
0.05μS/DIV, 1V/DIV



⑧10.7MHz VCO output
0.05μS/DIV, 1V/DIV

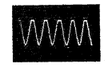


⑨Phase comparator output
0.05μS/DIV, 0.5V/DIV

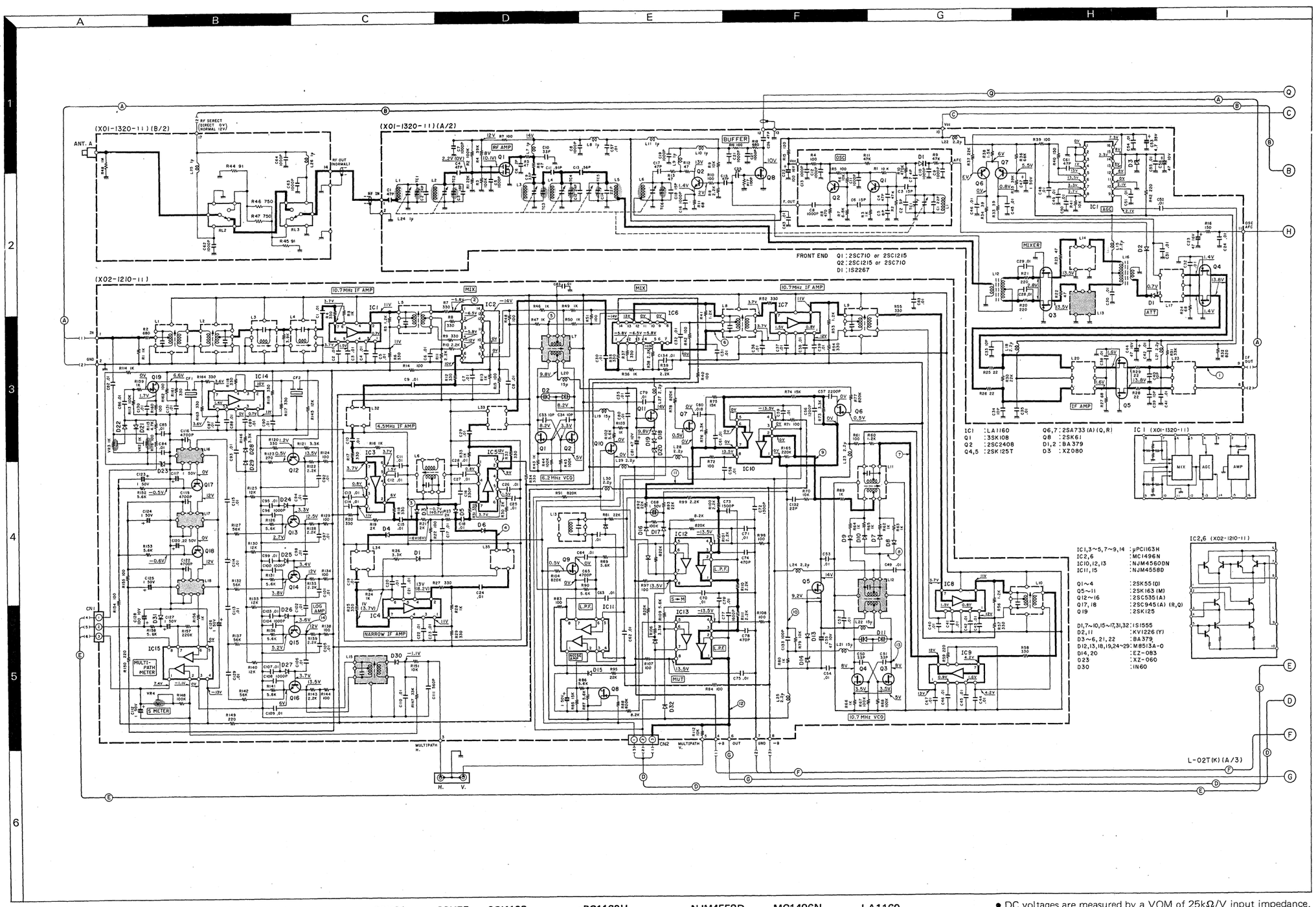
⑩⑪Loop filter output
0.2mS/DIV, 0.5V/DIV

⑫Detect output
0.2mS/DIV, 0.5V/DIV

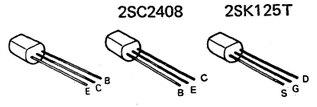
⑬10.7MHz VCO
0.05μS/DIV, 1V/DIV



⑭Log amp
0.05μS/DIV, 0.5V/DIV



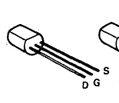
2SA733
2SC535
2SC945



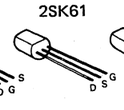
2SC2408

2SK125T

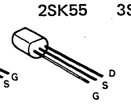
2SK125
2SK163



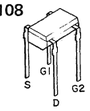
2SK61



2SK55

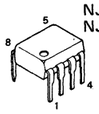


3SK108

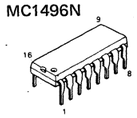


μPC1163H

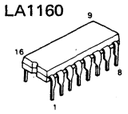
NJM4558D
NJM4560D-N



MC1496N

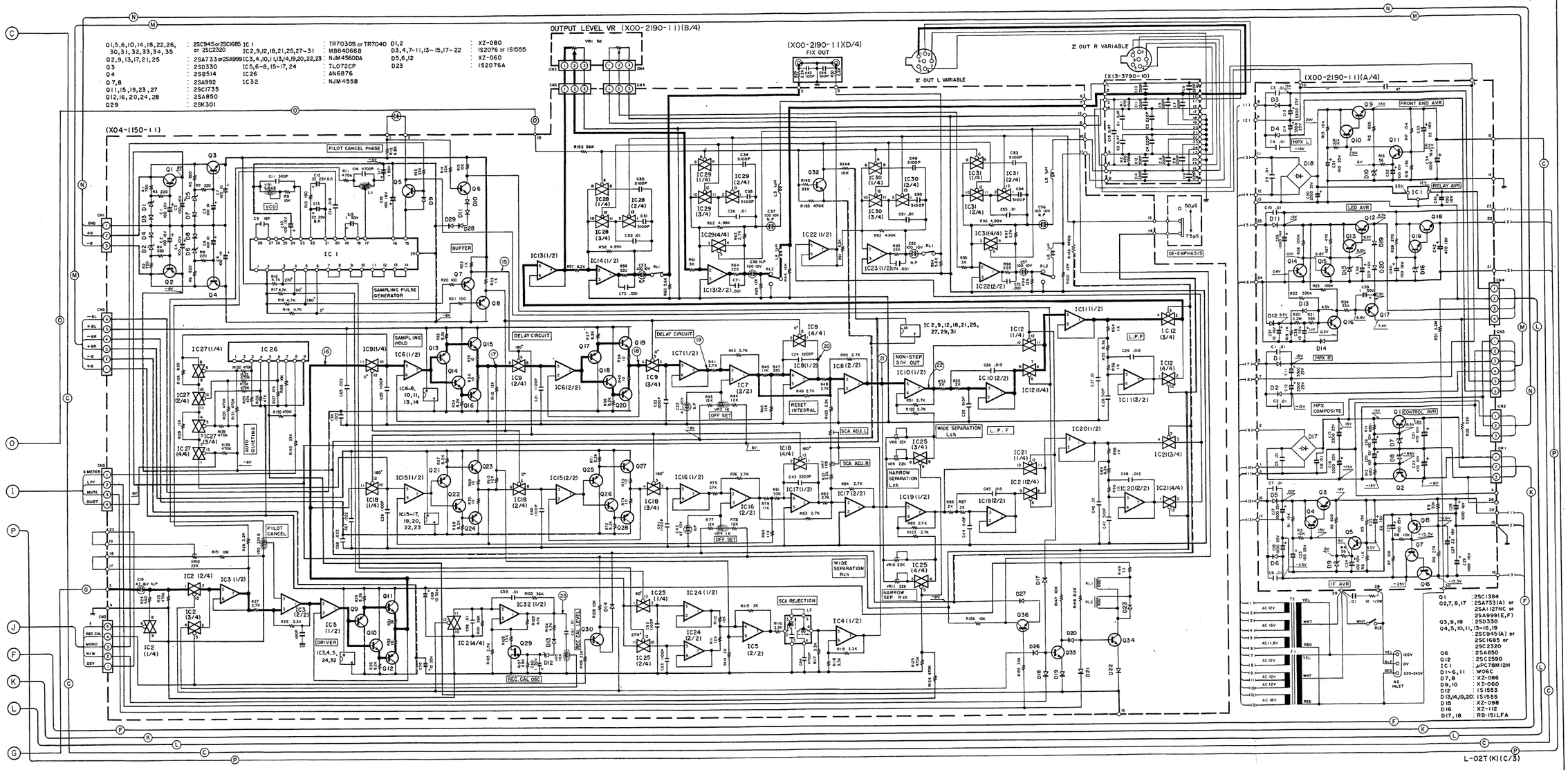


LA1160



- DC voltages are measured by a VOM of 25kΩ/V input impedance.
- Les tensions de courant continu sont mesurées par un multimètre d'une impédance d'entrée de 25kΩ/V.
- Die Gleichstrom-Spannungen werden durch ein Vielfachmeßgerät von 25kΩ/V Eingangs-Impedanz gemessen.

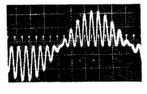
Q1,5,6,10,14,18,22,26, 30,31,32,33,34,35	: 2SC945 or 2SC1685 or 2SC2320	IC 1	: TR7030B or TR7040	D1,2	: XZ-080
Q2,9,13,17,21,25	: 2SA733 or 2SA999	IC2,9,12,18,21,25,27~31	: MB84066B	D3,4,7~11,13~15,17~22	: IS2076 or IS1555
Q3	: 2SD330	IC3,4,10,11,13,14,19,20,22,23	: NJM4560DA	D5,6,12	: XZ-060
Q4	: 2SB514	IC5,6~8,15~17,24	: TL072CP	D23	: 1S2076A
Q7,8	: 2SA992	IC26	: AN6876		
Q11,15,19,23,27	: 2SC1735	IC32	: NJM4558		
Q12,16,20,24,28	: 2SA850				
Q29	: 2SK301				



L-02T(K)(C/3)

Input condition
⑮~㉑:Composite signal 1.9kHz (Mod), SELECTOR : L
㉒:Pilot signal no modulation
㉓:REC CAL : ON

⑮Sampling pulse
⑯Composite signal
50μS/DIV, 0.5V/DIV

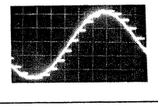


⑮Sampling pulse
⑰Sampling hold
50μS/DIV, 0.5V/DIV

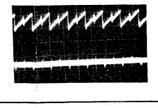
⑰⑱1/76mS delay sampling hold
50μS/DIV, 0.5V/DIV

⑲1/38mS delay
⑳Reset integral
50μS/DIV, 0.5V/DIV

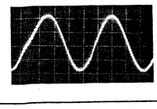
⑲1/38mS delay
㉑Synthesizes waveform



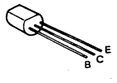
㉒OFFSET ADJ.
20μS/DIV, 0.2V/DIV



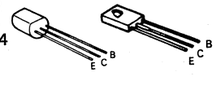
㉓REC CAL OSC
0.5mS/DIV, 5V/DIV



2SA850
2SC1735

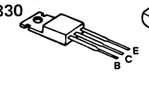


2SA733
2SA992
2SC945
2SC1384

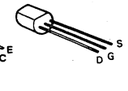


2SC2590

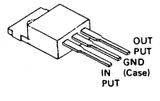
2SB514
2SD330



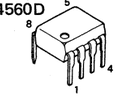
2SK301



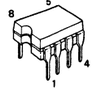
μPC78M12H



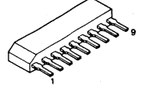
NJM4558D
NJM4560D



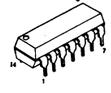
TL072CP



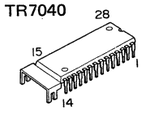
AN6876



MB84066B



TR7040



- DC voltages are measured by a VOM of 25kΩ/V input impedance.
- Les tensions de courant continu sont mesurées par un multimètre d'une impédance d'entrée de 25kΩ/V.
- Die Gleichstrom-Spannungen werden durch ein Vielfachmeßgerät von 25kΩ/V Eingangs-Impedanz gemessen.

IC1,5 : NJM4558D or AN6552
IC2,4 : TC4011BP or μPD4011BC
IC3 : TC4001BP or μPD4001BC
IC7 : TC4007UBP
IC8 : TC4069UBP or μPD4069C
IC9 : TC4030BP or μPD4030BC
IC10 : TC4528BP or μPD4528C
IC11 : TC9130P
IC12 : TC4044BP or μPD4044C
IC13 : M74LS04P

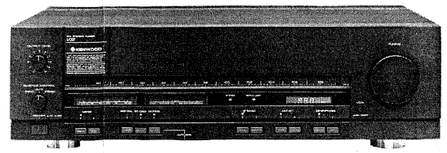
Q1,2,5,13-18,20,22 : 2SC954(A)(Q,P)
Q3,4,6,7 : 2SK301(Q,P)
Q8 12,19,21 : 2SA733(A)(Q,P)
D1,2,4 12,14,15,27 30 : 1S1555 or 152076
D3,13 : XZ-057

Q1,3 : 2SC945(A) or 2SC2320
D1 : WZ-058
D4~6 : 152076 or 1S1555
IC1 : M54459L
IC2 : LC7257

- DC voltages are measured by a VOM of 25kΩ/V input impedance.
- Les tensions de courant continu sont mesurées par un multimètre d'une impédance d'entrée de 25kΩ/V.
- Die Gleichstrom-Spannungen werden durch ein Vielfachmeßgerät von 25kΩ/V Eingangs-Impedanz gemessen.

FM STEREO TUNER

L-02T



SPECIFICATIONS

PERFORMANCE

Usable Sensitivity		10.7 dBf (0.95 μV)	
50dB Quieting Sensitivity (Mono)		16.3 dBf (1.8 μV)	
	(Stereo)	39.2 dBf (25 μV)	
Signal to Noise Ratio	(Mono)	95 dB	
	(Stereo)	85 dB	
Total Harmonic Distortion (85 dBf)		**WIDE**	**NARROW**
(Mono)	100 Hz	0.006%	0.01%
	1,000 Hz	0.006%	0.02%
	6,000 Hz	0.02%	0.2%
	15,000 Hz	0.02%	0.02%
	50 Hz ~ 10,000 Hz	0.02%	0.2%
(Stereo)	100 Hz	0.02%	0.1%
	1,000 Hz	0.01%	0.1%
	6,000 Hz	0.03%	0.2%
	15,000 Hz	0.3%	
	50 Hz ~ 10,000 Hz	0.04%	0.2%
Capture Ratio		1.0 dB	3.8 dB
Alternate Channel Selectivity		45 dB (± 400 kHz)	65 dB (± 300 kHz)
Stereo Separation			
	1,000 Hz	55 dB	45 dB
	50 Hz ~ 10,000 Hz	45 dB	35 dB
	15,000 Hz	40 dB	
Frequency Response		15 Hz to 15,000 Hz	+0.2 dB −0.5 dB
Spurious Response Ratio		120 dB	
Image Response Ratio		120 dB	
IF Response Ratio		120 dB	
AM Suppression Ratio		70 dB	
Sub Carrier Product Ratio		70 dB	
Antenna Impedance		75 ohms unbalanced	
Output Level at 1 kHz 100% Mod.			
	Fixed	0.75V, less than 1 ohm	
	Variable	1.5V, less than 1 ohm (Sigma drive)	
Multipath Output	**Vertical**	0.5V, 3k ohms	
	Horizontal	0.01V, 10k ohms	
Tuning scale adjustment range		± 2 mm	

GENERAL

Power Requirement	60 Hz, 120V (U.S.A. and Canada models) Model sold elsewhere incorporates switches to accomodate 50/60 Hz, 120/220-240V
Power Consumption	37 watts
Dimensions	W: 480 mm (18-7/8") H: 147.5 mm (5-13/16") D: 423 mm (16-5/8")
Weight (Net)	12.4 kg (27.3 lb)

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

FRONT END Q1 : 2SC710 or 2SC1215
Q2 : 2SC1215 or 2SC710
D1 : IS2267

IC1 : LA1160
Q1 : 3SK108
Q2 : 2SC2408
Q4,5 : 2SK125T
Q6,7 : 2SA733 (A) (Q,R)
Q8 : 2SK61
D1,2 : BA379
D3 : XZ080

IC1 (X01-1320-11)

IC2,6 (X02-1210-11)

IC1,3~5,7~9,14 : μPC1163H
IC2,6 : MC1496N
IC10,12,13 : NJM4560DN
IC11,15 : NJM4558D

Q1~4 : 2SK55(D)
Q5~11 : 2SK163 (M)
Q12~16 : 2SC535 (A)
Q17,18 : 2SC945 (A) (R,Q)
Q19 : 2SK125

D1,7~10,15~17,31,32 : 1S1555
D2,11 : KV1226 (Y)
D3~6,21,22 : BA379
D12,13,18,19,24~29 : MB813A-0
D14,20 : EZ-083
D23 : XZ-060
D30 : IN60

L-02T(K)(A/3)

2SK125T 2SK125 2SK163 2SK61 2SK55 3SK108 μPC1163H NJM4558D NJM4560D-N MC1496N LA1160

- DC voltages are measured by a VOM of 25kΩ/V input impedance.
- Les tensions de courant continu sont mesurées par un multimètre d'une impédance d'entrée de 25kΩ/V.
- Die Gleichstrom-Spannungen werden durch ein Vielfachmeßgerät von 25kΩ/V Eingangs-Impedanz gemessen.